

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

CLAIMS: The invention claimed is:

Claim 1 (Currently amended): A method of computing an unnormalized texture map coordinate for a non-power of two texture map (the non-power of two texture map having a dimension m , where $m \neq 2^i$, and i is an integer), comprising:

receiving a normalized texture map coordinate corresponding to the non-power of two texture map, wherein the normalized texture map coordinate has a value between 0 and 1;

receiving a non-power of two LOD (level of detail) dimension corresponding to the non-power of two texture map; and

scaling the normalized texture map coordinate by the non-power of two LOD dimension to compute the unnormalized texture map coordinate for the non-power of two texture map, wherein the unnormalized texture map coordinate has a value between 0 and the non-power of two LOD dimension – 1.

Claim 2 (Original): The method of claim 1, wherein the non-power of two LOD dimension is a width.

Claim 3 (Original): The method of claim 1, wherein the non-power of two LOD dimension is a height.

Claim 4 (Original): The method of claim 1, wherein the unnormalized texture map coordinate for the non-power of two texture map is used to determine an address of a texel within the non-power of two texture map.

Claim 5 (Currently Amended): A method of using a non-power of two texture map, (the non-power of two texture map having a dimension m , where $m \neq 2^i$, and i is an integer) comprising:

receiving a normalized texture map coordinate corresponding to the non-power of two texture map, wherein the normalized texture map coordinate has a value between 0 and 1;

receiving an LOD (level of detail) dimension corresponding to the non-power of two texture map;

obtaining a reduced portion of the normalized texture map coordinate; and
scaling the reduced portion by the LOD dimension to compute an unnormalized texture map coordinate for the non-power of two texture map, wherein the unnormalized texture map coordinate has a value between 0 and the non-power of two LOD dimension – 1.

Claim 6 (Original): The method of claim 5, wherein the LOD dimension is selected from the group consisting of a width, a height, and a depth.

Claim 7 (Original): The method of claim 5, wherein the normalized texture map coordinate corresponding to the non-power of two texture map is represented in a floating-point format.

Claim 8 (Original): The method of claim 5, wherein the step of obtaining a reduced portion of the normalized texture map coordinate comprises performing a wrap computation based on a wrap mode.

Claim 9 (Original): The method of claim 8, further comprising:

receiving another normalized texture map coordinate corresponding to the non-power of two texture map;

receiving another LOD dimension corresponding to the non-power of two texture map;

obtaining a reduced portion of the other normalized texture map coordinate; and

scaling the reduced portion of the other normalized texture map coordinate by the other LOD dimension to compute another unnormalized texture map coordinate.

Claim 10 (Original): The method of claim 5, wherein the unnormalized texture map coordinate is used to determine an address of a texel within the non-power of two texture map.

Claim 11 (Original): The method of claim 4, wherein the texel is filtered as a function of a weight to produce a filtered texel for a fragment.

Claim 12 (Original): The method of claim 5, wherein the non-power of two texture map is a video image.

Claim 13 (Original): The method of claim 5, further comprising the step of filtering the non-power of two texture map to produce a second level of detail.

Claim 14 (Original): The method of claim 13, wherein a dimension of the second level of detail is not half of the dimension of the non-power of two texture map.

Claim 15 (Currently Amended): A coordinate computation unit for determining texture map coordinates for non-power of two texture maps (the non-power of two texture maps having a dimension m , where $m \neq 2^i$, and i is an integer), comprising a scale unit configured to receive the normalized texture coordinate and scale the normalized texture coordinate by a non-power of two LOD (level of detail) dimension for the non-power of two texture map to produce an unnormalized texture map coordinate for the non-power of two texture map, wherein the unnormalized texture map coordinate has a value between 0 and the non-power of two LOD dimension – 1.

Claim 16 (Original): The coordinate computation unit of claim 15, wherein the scale unit is configured to receive a reduced portion of the normalized texture coordinate and produce an unnormalized texture map coordinate for the non-power of two texture map.

Claim 17 (Original): The coordinate computation unit of claim 16, further comprising a parameter conversion unit configured to receive the normalized texture coordinate corresponding to the non-power of two texture map and produce the reduced portion of the normalized texture coordinate.

Claim 18 (Original): The coordinate computation unit of claim 17, wherein the parameter conversion unit determines the reduced portion responsive to a wrap mode specified by a fragment program.

Claim 19 (Original): The coordinate computation unit of claim 17, wherein the scale unit is configured to scale the reduced portion by a non-power of two LOD dimension.

Claim 20 (Original): The coordinate computation unit of claim 19, wherein the non-power of two LOD dimension is selected from the group consisting of width, height, and depth.

Claim 21 (Original): The coordinate computation unit of claim 15, wherein the coordinate computation unit is included in a texture unit, the texture unit comprising an address computation unit configured to receive the unnormalized texture coordinate and produce an address corresponding to a texel in the non-power of two texture map.

Claim 22 (Original): The coordinate computation unit of claim 21, wherein the texture unit is included within a programmable graphics processor, the programmable graphics processor including a rasterizer configured to produce the normalized texture coordinate.